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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 14

Application Number: 09/547,627
Filing Date: April 12, 2000
Appellant(s): DANIEL N. DUNCAN et al.

ROBERT W. HOLLAND
 For Appellants

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Technology Center 2600

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed August 13, 2002.

(1)   *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2)   *Related Appeals and Interferences*

The brief does contain a statement identifying the related appeals and

interferences which will directly affect or be directly affected by or have a bearing on the

decision in the pending appeal is contained in the brief.

(3)   *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

This appeal involves claims 1-50.

(4)   *Status of Amendments After Final*

The Appellant's statement of the status of amendments after final rejection

contained in the brief is correct.

(5)   *Summary of Invention*

The summary of invention contained in the brief is correct.

(6)   *Issues*

The appellant's statement of the issues in the brief is correct.

The rejection of claim 1 under 35 USC § 112, 2nd paragraph is no longer an issue

because Examiner is now withdrawing that rejection.

(7)   *Grouping of Claims*

Appellant's brief includes a statement that claims do not stand or fall together

and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8)   *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9)   *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of

claims under appeal.

NUMBER	NAME	DATE
5,040,208	Jolissaint	8-13-1991
5,946,386	Rogers et al	8-31-1999
6,002,760	Gisby	12-14-1999
6,088,444	Walker et al	7-11-2000

(10)   New prior art.

No new prior art has been applied in this examiner's answer.

*(11)   **Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-35, 37-44 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Walker et al (US Pat No. 6,088,444).

Regarding claim 1, Walker et al teach the invention as claimed, a method for ordering inbound inquiries comprising:

receiving plural inbound inquiries, each inbound inquiry having associated inquiry information (Figs 5-8; col 3, ln 64-col 4, ln 8 and col 5, ln 24-col 6, ln 28);

applying a model to the inquiry information to determine a priority value for each inquiry, the model estimating the probability of an inbound inquiry having a predetermined result; this reads on using the history or past purchases of the caller to prioritize the incoming call (col 3, ln 64-col 4, ln 8 and col 5, ln 62-col 6, ln 8); and

ordering the inbound inquiries with the priority values (Figs 5-8; col 3, ln 64-col 4, ln 8 and col 5, ln 24-col 6, ln 28).

Regarding claim 3, Walker et al teach that the method inquiries comprise instant messages (col 2, ln 49-54).

Regarding claim 4, Walker et al teach that the inbound inquiries comprise inbound telephone calls having associated caller information (col 5, ln 24-31).

Regarding claim 5, Walker et al teach that the caller information comprises automatic number identification information (col 5, ln 24-31).

Regarding claim 6, Walker et al teach that caller information comprise destination number identification information (col 5, ln 24-31).

Regarding claim 7, Walker et al teach that the method further comprising the step of gathering the caller information with a voice response unit (col 5, ln 41-54).

Regarding claim 8, Walker et al teach that the method further comprising:

associating demographic information with each inbound telephone call based on the caller information of the inbound call (Figs 5-8 and col 5, ln 24-col 6, ln 28); and

applying the model to the caller information to determine the priority value for each telephone call (Figs 5-8 and col 5, ln 24-col 6, ln 28).

Regarding claim 9, Walker et al teach that the model predicts caller behavior (col 3, ln 46-col 4, ln 8).

Regarding claim 10, Walker et al teach that the priority value comprises a probability that the telephone call will result in a purchase (col 3, ln 46-col 4, ln 8).

Regarding claim 11, Walker et al teach that the priority value comprises a probability that the caller associated with the telephone callwill terminate the call after a hold time (col 3, ln 46-col 4, ln 8).

Regarding claim 12, Walker et al teach that the method further comprising the step of developing plural models from a history of inbound inquiries to forecast plural outcomes that determine the priority value (col 3, ln 64-col 4, ln 8 and col 6, ln 29-42).

Regarding claim 13, Walker et al teach that developing the model further comprises: applying regression analysis to the history to calculate the priority value (col 3, ln 64-col 4, ln 8 and col 6, ln 29-42).

Regarding claim 14, Walker et al teach that the method further comprising the step of:

determining the outcomes of the plural inbound inquiries (col 3, ln 64-col 4, ln 8 and col 6, ln 29-42); and

updating the history with the outcomes of the plural inbound inquiries (col 3, ln 64-col 4, ln 8 and col 6, ln 29-42).

Regarding claim 15, Walker et al teach the developing the caller model further comprises: updating the model with the updated history (col 3, ln 64-col 4, ln 8 and col 6, ln 29-42).

Regarding claim 16, Walker et al teach a method for determining inbound telephone call priority, the method comprising:

developing one or more models from a history of inbound calls, the history Serial having caller information and outcome results from inbound telephone calls (col 3, ln 46-col 4, ln 8);

applying the model to caller information of a pending inbound call to predict an outcome of the pending inbound call (col 3, ln 46-col 4, ln 8); and

associating a priority with the pending inbound call, the priority based on the predicted outcome (col 3, ln 46-col 4, ln 8).

As to claims 17-19, they are rejected for the same reasons set forth to rejecting claims 4-6, respectively.

Regarding claim 20, Walker et al teach that the caller information further comprises account information, the method further comprising the step of obtaining account information for the pending inbound call, the account information stored in a database by association with the telephony information (col 3, ln 15-38).

As to claim 21, it is rejected for the same reasons set forth to rejecting claim 7.

As to claim 22, it is rejected for the same reasons set forth to rejecting claim 20.

As to claims 23-25, they are rejected for the same reasons set forth to rejecting claims 9-11, respectively.

Regarding claim 26, Walker et al teach that the method further comprising the step of placing the pending inbound call in the queue of an automatic call distribution system in an order based on the priority of the pending Serial
inbound call (col 3, ln 15-25).

As to claim 27, it is rejected for the same reasons set forth to rejecting claim 16.

Regarding claim 28, Walker et al teach that the predicted outcome comprises the hold time of the pending inbound call (col 6, ln 29-42).

Regarding claim 29, Walker et al teach that associating priority further comprises optimizing the order for the inbound telephone calls (col 6, ln 43-54).

Regarding claim 30, Walker et al teach that optimizing the order comprises solving a constrained optimization problem using one or estimates from one or more

models (col 6, ln 43-54).

Regarding claim 31, Walker et al teach that optimizing further comprises

maximizing agent productivity to minimize caller attrition (col 6, ln 43-54).

Regarding claim 32, Walker et al teach that optimizing further comprises

maximizing agent productivity to produce sales (col 6, ln 43-54).

Regarding claim 33, Walker et al teach a system for scheduling inbound calls

comprising:

a receiving device operable to receive plural inbound inquiries and to provide the

inbound inquiries to one or more agents (Figs 1-2 and col 3, ln 15-25);

a scheduling module interfaced with the receiving device, the scheduling model

operable to order the inbound inquiries for handling by the receiving device, the order

based in part on the predicted outcome of the inbound inquiries (col 3, ln 46-col 4, ln 8).

As to claims 34-35, they are rejected for the same reasons set forth to rejecting

claim 26 above, since claims 34-35 are merely a system for implementing the method

defined in the method claim 26.

As to claim 37, it is rejected for the same reasons set forth to rejecting claim 7

above, since claim 37 is merely a system for implementing the method defined in the

method claim 7.

Regarding claim 38, Walker et al teach that the system further comprising:

an inbound call history data base operable to store outcome results and caller

information from plural completed inbound calls (col 3, ln 64-col 4, ln 8 and col 6, ln 29-

42); and

a modeling module interfaced with the history database and operable to model inbound call outcomes from the stored outcome results and caller information (col 3, ln 64-col 4, ln 8 and col 6, ln 29-42).

As to claim 39, it is rejected for the same reasons set forth to rejecting claim 33.

As to claim 40, it is rejected for the same reasons set forth to rejecting claim 26 above, since claim 40 is merely a system for implementing the method defined in the method claim 26.

As to claim 41, it is rejected for the same reasons set forth to rejecting claim 12 above, since claim 41 is merely a system for implementing the method defined in the method claim 12.

As to claim 42, it is rejected for the same reasons set forth to rejecting claim 29 above, since claim 42 is merely a system for implementing the method defined in the method claim 29.

As to claim 43, it is rejected for the same reasons set forth to rejecting claim 31 above, since claim 43 is merely a system for implementing the method defined in the method claim 31.

As to claim 44, it is rejected for the same reasons set forth to rejecting claim 1.

As to claim 46, it is rejected for the same reasons set forth to rejecting claim 3.

Claims 2, 36, 45 and 47 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Walker et al as applied to claims 1, 33 and 44 above, and further in

view of Rogers et al (US Pat No. 5,946,386).

Regarding claims 2, 36, 45 and 47, Walker et al teach the invention

substantially as claimed, with exception of providing the plural media comprise

telephone calls and e-mail messages and voice of internet. However, Rogers et al

disclose a system in which communication users can communicate with each other in

the form of voice and data via Internet (Fig 1; col 11, ln 45-50 and col 28, ln 42-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to integrate the use of the internet as taught by Rogers et

al into the communication system of Walker et al to enable the communication users to

exchange e-mail or voice in order to provide more communication flexibility and

communication cost saving to such communication users.

Claims 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Walker et al in view of Gisby (US Pat No. 6,002,760), of record.

Regarding claims 48-49, Walker et al teach the invention substantially as

claimed, a method for ordering inbound inquiries comprising:

receiving plural inbound inquiries, from plural inquiry media, each inbound inquiry

having associated inquiry information (Figs 5-8 and col 5, ln 24-col 6, ln 28);

applying the inquiry information to one or more models to determine a priority

value for each inquiry (Figs 5-8 and col 5, In 24-col 6, In 28); and

ordering the inbound inquiries with the priority values (Figs 5-8 and col 5, In 24-col 6, In 28).

Walker et al differs from claimed invention in that it does not explicitly teach the method of scheduling one or more inbound inquiries for an outbound contact attempt at a time based on the priority of the inbound inquiry and informing the inquirer time scheduled for call back. However, Gisby teaches a method in which one or more callers waiting in the queue can leave or disconnect from the queue and to be scheduled for call back for processing without loosing priority order in the queue, wherein time scheduled for call back is communicated to each caller (col 6, In 57-col 7, In 5).

Therefore, having the cited art, it would have been obvious to one of ordinary skill in the art to add the method of scheduling and communicating time for calling back to the callers who left the queue without loosing priority order in the queue in order to provide the caller with more convenience in managing his or her time.

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al in view of Jolissaint (US Pat No. 5,040,208).

Regarding claim 50, Walker et al teach a method for ordering inbound inquiries comprising:

receiving plural inbound inquiries, from plural inquiry media, each inbound inquiry having associated inquiry information (Figs 5-8 and col 5, In 24-col 6, In 28);

applying the inquiry information to one or more models to determine a priority

value for each inquiry (Figs 5-8 and col 5, ln 24-col 6, ln 28); and

ordering the inbound inquiries with the priority values (Figs 5-8 and col 5, ln 24-col 6, ln 28).

Walker et al differs from claimed invention in that it does not explicitly teach the method of asking the inbound inquirer for the channel and time for a response and scheduling a response at the channel and time. However, Jolissaint teaches a method in which one or more callers waiting in the queue can leave or disconnect from the queue to be asked for providing telephone number (channel) and time made available for called back (col 3, ln 40-62).

Therefore, having the cited art, it would have been obvious to one of ordinary skill in the art to add the method of asking the caller for providing telephone number (channel) and time made available for call back in order to provide the caller with more convenience in managing his or her time.

(12)   New ground of rejection.

This Examiner's Answer does not contain any new ground of rejection.

(13)   Response to Argument.

Appellant's arguments (page 3, Brief) are moot because the 112, 2nd paragraph rejection is now withdrawn.

In regards to rejection of claims 1, 16, 33, 39 and 44 under 35 USC

§ 102(e) , Appellant argues (page 5, Brief) that *"Walker does not have to predict*

whether a caller will make a purchase since the caller has already selected

desired purchases through the IVR. Walker merely queues calls based on the

purchases selected by the caller. For instance, Walker simply adds up the dollar

value of an order input by a caller and then queues higher-dollar-value inbound

calls to be answered before calls that order lesser amounts. Therefore, Walker

has no need to predict the probability of a purchase since the caller has already

input the purchase".

Examiner respectfully disagrees because in another embodiment (model), in

addition the embodiment (model) cited above by Appellant, Walker discloses that

positions of calls are also re-ordered based on historical or past economic value

(column 3, line 64 through column 4, line 8) since a high historical or past economic

value may provide high economic outcome of the current call. Furthermore, Appellant's

statement cited above contradicts Appellant's <u>own</u> Specification on page 22, from lines

21 through 29 in which Appellant's <u>own</u> Specification discusses the use of VRU to

receive data for predicting an incoming call outcome. Note that IVR (Interactive Voice

Response) is the same as VRU (Voice Response Unit).

Appellant further argues (page 6, Brief) that *"the example given by Walker in*

which a customer having six orders of over $100 per year giving the probability

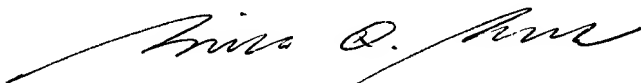*of higher profit than the one having $200 per year does not inherently disclose a*

model that predicts an outcome of a call since the history does not necessarily indicate a higher purchase probability. For instance, with reference to Walker's example of airline tickets (column, line 65 through column 6, line 8), a customer who recently purchased airline tickets may very well be less likely to desire the purchase of additional tickets as opposed to changing a flight schedule".

This appears to contradict Appellant's <u>own</u> Specification (Specification, page 22, lines 25-29) which states that the call environment itself may provide data based on the types and number of calls received in a recent period of time , the time and number within a period of time, such as a particular hour or day, and the results provided by the calls. Appellant provides an example (page 6, Brief) of an airline customer who recently purchased tickets and may call again to change flight schedule. In this regard, Examiner believes that neither Walker nor Appellant's claimed invention is 100% accurate on all predictions when the predictions are based on "history" or "calls received in recent period of time".
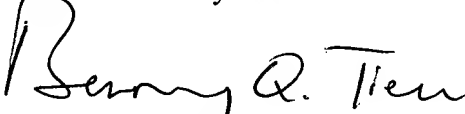
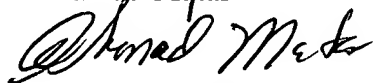For the above reasons, it is believed that the rejections should be sustained.

CONFEREES:

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